Office of Administration

Missouri Head Injury Advisory Council

FY 87 ANNUAL REPORT and ACTION PLAN

Statewide Service Delivery System

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STATE OF MISSOURI

OFFICE OF ADMINISTRATION

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September 15, 1987

The Honorable John Ashcroft
Office of the Governor
State Capitol Building, Room 216
Jefferson City, Missouri 65101

Dear Governor Ashcroft:

I am pleased to submit to you the Missouri Head Injury Advisory Council Annual Report as required by Missouri statute summarizing activities of the council for the period of July 1, 1986 through June 30, 1987. The report also contains an action plan outlining the goals and objectives of the council for the next three to five years in an attempt to obtain statewide service delivery systems for survivors of brain injury and their families.

As you peruse the report, should you have any suggestions as to how we may improve our delivery systems, please forward your comments to the council director at the above address. We would very much appreciate your comments.

After serving two initial years as chairman, I will at the September meeting be passing the gavel to whomever the council chooses at that meeting to succeed me in the next year.

I wish to thank you for your support of those Missourians who have suffered brain injury and look forward to your continued support.

Sincerely,

Senator Edwin L. Dirck
Chairman

ELD/lml

Preface

Referred to as the "silent epidemic," head injury is the leading cause of death and disability killing more than 140,000 Americans each year and severely disabling another 50,000 to 70,000 persons intellectually, physically and psychologically. Two-thirds of the victims are males between the ages of 15 to 25. Fifty percent of all head injuries are caused by motor vehicle accidents. Falls, diving accidents, industrial accidents, assaults, weapons and recreational accidents cause the remaining 50 percent.

Emergency medical and technologic advances have resulted in greater survival rates for persons who have sustained a traumatic head injury. The number of survivors will continue to increase as emergency medical services and hospital care, including trauma centers, continue to improve and become more readily available. The increased number of survivors has placed greater demands on rehabilitation services, residential programs and community support programs.

The Missouri Head Injury Advisory Council was created in 1985 to study the unique needs of survivors of head injury and their families. The council established under Section 192.745 RSMo is (1) to make recommendations to the governor for developing and administering a state plan to provide services for Missourians with head injury and (2) to report annually to the commissioner of administration, the governor and the general assembly on its activities, results of its studies and the recommendations of the council.

In keeping with the mandate, this report is organized into three major chapters: *Description of Programs and Needs; Fiscal Year 1987 Activities; and Action Plan.*

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Chapter 1: Description of Programs and Needs

Introduction

Mission of the Council

In 1986, legislation was enacted which established the Missouri Head Injury Advisory Council as created by Executive Order by Governor John Ashcroft March 5, 1985 (Section 192.145 RSMo). The council was established to make recommendations to the governor for developing and administering a state plan to provide services for survivors of head injury.

The council is to be advisory and shall:

(1) Promote meetings and programs for the discussion of reducing the debilitating effects of head injuries and disseminate information in cooperation with any other department, agency or entity on the prevention, evaluation, care, treatment and rehabilitation of persons affected by head injuries;

(2) Study and review current prevention, evaluation, care, treatment and rehabilitation technologies and recommend appropriate preparation, training, retraining and distribution of manpower and resources in the provision of services to head injured persons through private and public residential facilities, day programs and other specialized services;

(3) Recommend what specific methods, means and procedures should be adopted to improve and upgrade the state's service delivery system for head injured citizens of this state;

(4) Participate in developing and disseminating criteria and standards which may be required for future funding or licensing of facilities, day programs and other specialized services for head injured persons in this state;

(5) Report annually to the commissioner of administration, the governor, and the general assembly on its activities, and on the results of its studies and the recommendations of the council.

The council was assigned to the Missouri Office of Administration, Division of General Services. Funding was made available in an emergency appropriation to the Division of General Services for staff and other necessary expenses for council operation following the signing of the Executive Order. A director was hired in June 1985, and council members were appointed July 31, 1985.

The creation of the council followed the recommendations of the Missouri General Assembly Joint Interim Committee on Head Injury. The interim committee conducted five statewide hearings during the summer of 1984 with assistance from the Missouri Association of the National Head Injury Foundation.

"Head injury" or "traumatic head injury" is defined as: "a sudden insult or damage to the brain or its coverings, not of a degenerative nature. Such insult or damage may produce an altered state of consciousness and may result in a decrease of one or more of the following: mental, cognitive, behavioral or physical functioning resulting in partial or total disability. Cerebral vascular accidents, aneurisms and congenital deficits are specifically excluded from this definition " (Section 192.735 RSMo).

Incidence of Head Injury

The National Head Injury Foundation (NHIF) and the Missouri Association of the NHIF have estimated that 10,000 Missourians will annually suffer from a head injury. Of that number...

... 1,000 will be severely permanently disabled physically, intellectually and emotionally.
... 4,000 will be moderately disabled.
... 5,000 will be mildly injured.

Two-thirds of the victims are males between the ages of 15 to 25.

The Department of Health is to implement the head and spinal cord injury registry July 1, 1987. The hospitals are mandated by law to report head injuries to the Department of Health which, in turn, is to report the data at least annually to the Missouri Head Injury Advisory Council. With this data the council will be able to describe the head injury population more precisely.

Head Injury Services Model

Part of the challenge of providing adequate care for persons who sustain traumatic head injury is the diversity of needs after injury. Post-injury needs can range from full time care to community re-integration.

The order in which services are used can also vary; some people will move from acute medical care into community integration while others may require extended periods of nursing care before they benefit from rehabilitation. Thus, services must be flexible, but also allow for the most frequent progressions.

The service delivery system envisioned by the council is flexible. Rehabilitation of persons who have sustained traumatic head injury is based upon small steps emphasizing increased demands until the person's maximum level of independence is established. While returning to the community living is the ultimate goal, however, it must be recognized that the level of functioning will vary and victims of head injury may require differing support services.

The council published a report, *Proposed Service Delivery System for Rehabilitation of Missourians with Head Injury: Service and Program Definitions*, May 1986, which outlined four major types of programs: Acute Brain Injury Rehabilitation; Functional Living Rehabilitation; Transitional Living and Community Support Services.

In addition to these major service areas, prevention, emergency medical services and medical services are also components of the service delivery system envisioned by the council. Defining and re-defining a service delivery system model will be an ongoing process. No state to date has developed a statewide service delivery system for survivors of head injury.

Prevention

The incidence and severity of head injury can be reduced through prevention and early intervention activities. Motor vehicle accidents account for 50 percent of all head injuries. Falls, diving accidents, industrial accidents, assaults, weapons and recreational accidents cause the remaining 50 percent.

Injury has traditionally been regarded primarily as an unavoidable accident rather than a health problem. However, injuries can be prevented with a variety of strategies. Three general strategies are available to prevent injuries: (1) **Persuade** persons at risk to alter their behavior, (2) **require** individual behavior change by law or administrative rule and (3) **provide automatic protection** by product and environment design.

In 1983, Congress enacted a law authorizing the secretary of the Department of Transportation to request a study on trauma (injury) by the National Academy of Sciences. The committee issued the report, *Injury in America: A Continuing Health Problem*, in 1985. As the result of the report, a Center for Injury Control was located within the Centers for Disease Control operated by the U.S. Department of Health and Human Services.

One of the findings of the committee was the lack of the data necessary to allow for the study of the epidemiology of most injuries. The committee believed that systematic data collection is essential for planning and evaluating prevention programs.

Emergency Medical Services and Medical Care

The outcome of injury depends not only on its severity, but also on the speed and appropriateness of treatment. "Communication systems are needed to facilitate decision making, injury management at the site, and the rapid delivery of the patient to a hospital that can provide the needed care," according to the report, *Injury in America: A Continuing Health Problem.* Designated trauma centers are vital to the system.

For more than a decade the American College of Surgeons has pushed for a regional system of hospital-based trauma centers. A trauma center is a hospital where the medical staff has made a commitment to provide 24-hour "in-house" coverage by surgeons, anesthesiologists and supporting staff to care for trauma patients. Once a severely injured person arrives at a hospital, he will generally need the emergency medical services system of various specialists experienced in injury management.

Rehabilitation

Acute Brain Injury Rehabilitation Programs: Most often, after traumatic head injury, the victim goes from acute medical care to rehabilitation. This first rehabilitation, or Acute Brain Injury Rehabilitation, focuses on physical and gross cognitive deficits.

This intensive rehabilitation program provides comprehensive goal directed rehabilitation services. The program is designed to prevent and/or minimize chronic disabilities while restoring the individual to the optimal level of physical, cognitive and behavioral functioning. The rehabilitation program should be carefully coordinated and implemented as soon after onset of injury as is medically feasible.

Functional Living Rehabilitation Programs: These programs provide intensive rehabilitation with goal directed services to persons who have either completed acute rehabilitation or who have no major acute rehabilitation needs. Emphasis in this program is on functional cognitive, memory, or perceptual deficits, and appropriate interpersonal skills. Services may be delivered on an inpatient (residential) or outpatient (day program) basis.

Transitional Living Rehabilitation Programs: These programs provide intensive rehabilitation with goal directed services to persons who have sustained traumatic brain injury and who have completed acute and functional living rehabilitation programs or who have no significant need for such services prior to transitional living programs.

In these programs, participants would typically move from close observation and supervision to independent living with minimal supervision. Transitional living programs may exist independently or may be part of a larger program. The program should provide safe, accessible housing which allows transition from group living situations to independent living. Housing facilities should include provision for 24-hour supervision.

Community Support Services

Community Support Services provide ongoing or intermittent support to survivors of head injury and their families after rehabilitation. These services may exist independently or be part of a larger program. Such services provide ongoing or intermittent support in several areas including residential, employment, day program, respite, recreation, counseling, case management, transportation, therapies, vocational rehabilitation, education and other support services.

Residential

Ideally, a person suffering from a head injury would return to his/her natural environment following rehabilitation whether that be to live with a spouse, family or independently. For those who are unable to return to his/her natural environment, then some type of housing which provides some supervision and protection may be needed. Others may require continued rehabilitation, medical, nursing or specialized care provided in a residential setting.

Supervised Living Arrangement is a place of residence that substitutes for the individual's own home or for the home of the individual's family. It should provide environments that are conducive to the development of adaptive behavior, self help and independent living skills. The residence also should facilitate, to the greatest possible extent, continuity with culturally normative living patterns. It should be located within the community and should include both generic and specialized services.

Structured Residential Placement provides 24-hour care and treatment for those individuals who manifest severe behavior problems. The setting may exist independently or as a part of a larger program.

Coma Management Program may accept such individuals once they are medically stable and attempt to achieve improvement by the use of various stimulus techniques. Skilled nursing care and physical therapy are important elements of these programs.

Employment

The goal of rehabilitation is to enable a victim of head injury to return to his/her employment. Many will return to work or will return to work provided that certain modifications in the work environment take place which will enable the person to return to his/or her job. Others will require extensive vocational rehabilitation in order to be able to engage in competitive employment. For those who will not be able to engage in competitive employment without some type of assistance, other alternatives will need to be available.

Supported Employment means competitive employment occurring in integrated work settings and being performed by individuals with handicaps for whom either competitive employment has traditionally occurred or competitive employment has been interrupted or become intermittent as the result of a severe disability and who, because of their handicaps, need ongoing job coaching, psyco–social, support services, etc. to perform such work.

Sheltered Workshop Employment refers to an occupation–oriented facility operated by a not–for–profit corporation, which, except for its staff, employs only persons with a handicap and has a minimum enrollment of at least fifteen employable handicapped persons. (Section 178.900 RSMo.)

The Current System of Services

Programs for survivors of head injury are relatively new. Most of the programs providing services are private facilities. Several hospitals provide acute rehabilitation. A few hospitals and rehabilitation programs provide functional living rehabilitation services. Some nursing facilities and mental health facilities also serve some clients/patients with head injury. Transitional living rehabilitation, residential, employment programs and community support services are severely limited and in many areas non–existent.

Most of the private programs require the patient or client to pay for services. For those who do not have the ability to pay, the financial resources are limited.

State Supported Programs

Prevention

Missouri has several laws designed to protect people from injury and death. The laws include (1) mandating safety restraints for children, (2) seat belts for front seat driver and passengers in automobiles and (3) helmets for motorcyclists. Several agencies work on various prevention activities. Agencies which focus on prevention include the Division of Highway Safety, Missouri Coalition for Safety Belt Use, Missouri Safety Council, Department of Health and the Missouri Head and Spinal Cord Injury Prevention Program administered by the University.

The Department of Health with funds from the federal Preventive Health Services Block Grant provides some support to the University of Missouri–Columbia to administer the Missouri Head and Spinal Cord Injury Prevention Program. The prevention program conducts injury awareness programs for public school students. The program also receives some financial support from the Department of Public Safety, Division of Highway Safety and the Missouri Coalition for Safety Belt Use.

The Division of Highway Safety and Missouri State Highway Patrol work cooperatively with the Missouri Coalition for Safety Belt Use and the Missouri Safety Council to conduct public education programs to encourage motor vehicle safety. The Missouri Head Injury Advisory Council works with these groups to support legislation which promotes safety and prevention of fatalities and injuries.

Missouri is implementing a trauma registry which will provide much needed data with regard to head injuries. During the 1986 legislative session, legislation passed mandating hospitals to report head and spinal cord injuries to the Department of Health for reporting purposes. On July 1, 1987, the department is to implement the registry to meet the requirements of Section 192.735 RSMo, et seq. The department is to report the findings from the registry at least annually to the Missouri Head Injury Advisory Council. The data provided from the registry should identify specific causes, contributing factors and certain trends which should be useful in planning effective prevention strategies.

Emergency Medical Services/Medical Care

The Department of Health, Division of Health Resources, through its Bureau of Emergency Medical Services administers the State Ambulance Licensure Law. Its programs include: (1) Review and approval of curricula at training facilities that offer courses for emergency medical technicians (EMT), mobile emergency medical technicians (MEMT), emergency medical technician paramedics (EMT-P), first responder and corresponding refresher courses; (2) develop and administer uniform EMT and MEMT certification tests and (3) develop and coordinate a statewide EMS communications systems.

The statewide emergency medical communications systems includes 141 hospitals with two-way radio capabilities for communicating with ambulances. This system enables an ambulance attendant to radio a hospital to receive advice from a physician or other emergency room personnel concerning care of an emergency patient that the ambulance is transporting.

Legislation requiring the Department of Health to establish and regulate trauma centers passed during the 1987 legislative session. The bill also establishes the State Advisory Council on Emergency Services statutorily, requires licensure of air ambulances, further defines activities the EMTs may perform to severely injured victims and requires physicians or registered nurses authorized by a physician to instruct ambulance personnel to transport a severely injured patient to the closest hospital or designated trauma center in accordance with transport protocol.

Following implementation of the head and spinal cord injury registry, the Department of Health plans to provide to hospitals (1) a report summarizing information from registries, (2) a report listing specific cases identified by audit filters that hospital quality assurance committees may want to review and (3) a Trauma Score/Injury Severity Score (TRISS) chart.

Rehabilitation

As the result of legislation passed during the 1985 session, the name of the State Chest Hospital was changed to the Missouri Rehabilitation Center. The facility is administered by the Department of Health and is located at Mt. Vernon. A head injury unit was established January 1986 from a state appropriation for that purpose. The Missouri Rehabilitation Center provides acute rehabilitation, functional living (residential) and transitional living programs.

Also during the 1985 session, an appropriation was made to the Department of Health for purposes of purchasing services for survivors of head injury. The department administered the program for two years. The program was transferred effective July 1, 1987, to the Office of Administration, Division of General Services.

As the result of the state appropriation, functional living programs were created at Rusk Rehabilitation Center, Columbia, and Truman Medical Center–East. Both provide services on an outpatient basis.

Community Support Services

Residential

Supervised residential programs (apartment living or group homes) have not yet been developed for survivors of head injury. Persons requiring long term care or specialized care have generally sought services from the Department of Mental Health or from nursing facilities (residential care, intermediate care facilities or skilled nursing facilities).

During FY'86, the Missouri Head Injury Advisory Council surveyed the number of victims of head injury receiving services from the Department of Mental Health through its Divisions of Comprehensive Psychiatric Services and Mental Retardation and Developmental Disabilities, from nursing homes and from home health care agencies. A significant number were being served, although most were not receiving services specific to their injury related deficits.

The Department of Mental Health is proposing to include eligible head injury clients receiving services from the Division of Mental Retardation and Developmental Disabilities under a Medicaid waiver in an attempt to provide services more appropriately and in a less restrictive environment. Services proposed under the waiver include residential as well as (re)habilitation, therapies, case management, transportation, respite, home adaptation and home health care.

Employment

The Department of Elementary and Secondary Education, Division of Vocational Rehabilitation, which assists handicapped persons to become gainfully employed, has assigned a vocational rehabilitation counselor in each district office to work with clients with head injury. The division provides ongoing in-service training regarding head injury to its counselors to assist them in securing appropriate vocational services for its clients with head injury.

The first vocational rehabilitation program to expand its services to head injured clients is Metropolitan Employment Services, St. Louis, with assistance from the Division of Vocational Rehabilitation. The Division of Vocational Rehabilitation also obtains vocational training services from the following agencies: Advent Enterprises, Columbia; Goodwill Industries, St. Louis; Life Skills Foundation, St. Louis and Rehabilitation Institute, Kansas City.

Through funding from the Department of Health (transferred to the Office of Administration July 1, 1987), Advent Enterprises, Columbia, developed a vocational program which includes on-the-job training and job-coaching. The program started in March 1986.

Many persons with head injury are also employed in sheltered workshops throughout the state.

Day Programs/Support Services

A day program was established in St. Louis by the Bi-State Chapter of the Missouri Association of the National Head Injury Foundation with funding from the Department of Health (contractual services) in FY'86.

Opportunities Unlimited, an independent living program in Columbia, also receives state funding to provide assistance to survivors of head injury including the arrangement of personal care attendant services, counseling and some supervision for those living independently.

The Missouri Association of the National Head Injury Foundation sponsors a camp, Wilderness Retreat, during the summer with some assistance from the state. The retreat not only provides socialization and recreation for those who have sustained a head injury, but also provides respite for their families and caretakers.

Education

The Department of Elementary and Secondary Education, Division of Special Education, has assigned staff to assist school districts with the provision of educational services to students with head injury. The division has prepared a manual, *Developing Individual Education Plans for Students Who Have Suffered Traumatic Head Injury*, outlining educational responsibilities to be used in conjunction with the National Head Injury Foundation manual.

In Missouri, legislation was passed during the 1986 legislative session mandating hospitals to report head and spinal cord injuries to the Department of Health. The registry, which is to be implemented July 1, 1987, will provide not only the number of persons who received a head injury, but also the cause of the injury and contributing factors (lack of seat belts, helmets, etc.).

The legislation required the department to promulgate rules and regulations necessary to carry out the registry in consultation with the Missouri Head Injury Advisory Council. (The department is to at least annually compile a report of the data accumulated and submit such data relating to head injuries to the council.) The council participated on a committee to develop a reporting form for the hospitals. The council also supported full funding to the Department of Health for implementation of the registry.

A program which has received national attention and recognition for its prevention efforts is the Missouri Head and Spinal Cord Injury Prevention Program conducted by the University of Missouri–Columbia. The focus of the program is on children and teenagers. The council supported state funding to the Department of Health which would have expanded the program statewide.

Other activities the council conducted during Fiscal Year 1987 are as follows:

* Joined the Missouri Coalition for Safety Belt Use.

* Opposed the repeal of the motorcycle helmet law.

* Supported legislation prohibiting children from riding in the back of pickup trucks unless certain safety precautions are used.

* Opposed legislation to repeal seat belt fines.

None of the legislation passed.

Emergency Medical Services/Medical Care

During Fiscal Year 1986, the council studied Missouri's emergency medical services system and the method for designating trauma centers. After studying the system of care in Missouri, the council initiated legislation for the 1987 session to ensure timely and appropriate care for severely injured patients.

The legislation, which passed during the 1987 session, also requires air ambulance licensure, a medical advisor for ambulance services, paramedics to function according to protocols in case of cardiac or severe trauma, a State Advisory Council on Emergency Medical Services, ambulances to transport to closest hospital or designated trauma center in accordance with protocol and to establish and regulate trauma centers.

Only the state of Maryland is recognized as having a statewide coordinated system for emergency medical services. Implementation of Senate Bills 31 and 29 should improve Missouri's system of care resulting in more lives being saved and prevention of further injuries.

Program Planning and Development

The council developed a state action plan (Chapter 3) for developing a service delivery system for survivors of head injury and their families. The plan outlines goals and objectives for the next three to five years. The purpose of the plan is to provide a guide for the council's future activities.

Major topics addressed in the plan are: Prevention; planning and allocation of services; rehabilitation programs; services for children and youth; community support services; legal issues; professional training/staff development; quality assurance and financial support.

As requested by the Department of Health, council members accompanied health district staff to monitor programs under contract with the department to provide services to victims of head injury. The appropriation to the Department of Health for head injury programs was transferred during the legislative session to the Office of Administration, Division of General Services, to allow for coordination with the council's recommendations for services. The transfer is effective July 1, 1987.

Finally, the council initiated legislation, which passed, allowing a portion of the state subsidy for handicapped workers who work less than a six hour day. This was introduced to accommodate a workshop planned to employ only workers suffering from head injuries. Some of the workers may not be able to work a full six hour day and the workshop would be ineligible for the subsidy without the change in the statute.

Financing Alternatives

Obtaining funding for programs providing services to survivors of head injury and accessing existing funding and programs offering various services to persons with handicaps are two main goals of the council. The council supported additional general revenue (1) for purchasing services from non-state programs providing services and (2) for the head injury unit operated by the Missouri Rehabilitation Center, Mt. Vernon. With the state assistance a broad range of services are provided including: Functional living rehabilitation (outpatient and residential); transitional living; day program; socialization/recreation; pre-vocational training; on-the-job supervision and coaching; and personal care assistance for those living in independent/semi-independent situations.

The council has also explored other funding sources. An Attorney General's Opinion was issued during Fiscal Year 1987 stating that a person with a head injury would meet the definition of "handicapped" and, thus, county mill tax for programs for persons with developmental disabilities or other handicaps could be used for programs for persons with head injuries. The opinion did note that the county boards are autonomous and determine how the county funds should be spent.

Senator Edwin L. Dirck submitted the request prior to the end of Fiscal Year 1986. He asked if survivors of head injury would be eligible based on definition of "handicap" which is the same definition used for eligibility for sheltered employment and does not require the injury to occur before the age of eighteen. Some county boards had expressed concern as to whether a person suffering from a head injury would be considered eligible unless the person could meet the definition of developmental disability also defined in the statutes, which allow for counties to pass the mill tax.

The opinion was distributed to county boards of directors. The Department of Elementary and Secondary Education, Division of Special Education, sent the opinion to sheltered workshops.

The Department of Mental Health, as one of its major initiatives, started preparation of a request for a Medicaid waiver which would permit the state to provide community services to targeted population(s) and areas of the state in lieu of institutionalization. The department agreed to include eligible clients with head injury served by the Division of Mental Retardation and Developmental Disabilities.

It was noted in a study which the council conducted in 1986, *Survey of Missourians with Severe Head Injury served by Mental Health, Home Health and Nursing Home Facilities*, that the Division of Mental Retardation and Developmental Disabilities is providing some services provided that the injury occurs before the age of eighteen and the person requires similar services needed by persons with mental retardation.

The department under the proposed waiver is attempting to provide community services which may be more in tune with the needs of survivors of head injury. The waiver will also allow Missouri to access additional funding for programs through the Medicaid program.

One of the problems that survivors of head injury often face is qualifying for Missouri's Medicaid program. It is especially difficult for children under eighteen to qualify as many parents do not meet the income guidelines. Yet, medical, rehabilitation and long term expenses may be difficult for families to meet. Also, it is difficult for couples when one spouse is disabled due to a head injury provided the couple has assets.

The council initiated legislation which would establish a catastrophic fund to assist families with catastrophic medical expenses. The bill did not pass. The same provisions were included in a substitute for a proposal for a "Med–Assist" program. The "Med–Assist" bill addressed three groups of people: Uninsured and who do not qualify for Medicaid (medically needy), under–insured (catastrophic) and persons considered "high risk" and cannot obtain insurance. The "Med–Assist" bill did not pass.

However, Senator Dirck passed Senate Concurrent Resolution No. 6 which calls for a joint interim committee to study and make recommendations for meeting the health care needs of Missourians. In addition to studying the "Med–Assist" concept, the committee is to address the Medicaid program. State agencies, including the Office of Administration, are to be represented on the committee as well as public members (non–voting).

Summary

The Missouri Head Injury Advisory Council has been in existence for two years. During its second year, the council has continued to plan and advocate for improved services and for new services for survivors of head injury and their families. The members of the council adopted a plan (Chapter 3) for developing a service delivery system.

One of its main accomplishments during Fiscal Year 1987 is the initiation of legislation, which passed, to improve emergency medical services and to establish a system for trauma care in Missouri. Other legislative accomplishments include additional funding for programs serving clients with head injury, changes in the sheltered workshop law and the establishment of a joint interim committee to study the financing of health care needs of Missourians who may be considered medically needy. The council also worked against the repeal of the helmet law for motorcyclists and the repeal of seat belt fines.

It has continued to be a resource for professionals and families by providing information regarding head injury and services which are available. In addition, the council published a quarterly newsletter and sponsored a conference for professionals and families.

Finally, the council continued to work with the Department of Health to implement the head injury registry. The information obtained from the registry will be of great assistance as the council continues to plan for both prevention programs and for programs providing a variety of services for Missourians with head injury and their families.

Chapter 3: Action Plan

Issue 1: Prevention

BACKGROUND

The incidence and severity of head injury can be reduced through prevention and early intervention activities. In 1983, Congress enacted a law authorizing the secretary of the Department of Transportation to request a study on trauma (injury) by the National Academy of Sciences. The committee issued a report in 1985, *Injury in America: A Continuing Health Problem.*

One of the findings of the committee was the lack of data necessary to allow for the study of the epidemiology of most injuries. There is no national mechanism for collecting data regarding the number of head injuries, causes, number of persons disabled due to head injury, etc. The committee believed that systematic data collection is essential for planning and evaluating prevention programs.

The University of Missouri–Kansas City in cooperation with Argus Computing, Inc. developed a pilot trauma/injury database January 1986. Three hospitals participate in the Kansas City project. The UM–KC project was developed independently of the council. The project, however, is very cooperative and supplies data to the council on request.

Also addressed by the committee, was the need for good emergency medical systems and medical treatment. The outcome of injury depends not only on its severity, but also on the speed and appropriateness of treatment. In order to minimize injury it is important to have a system in place which can allow for injury management at the scene of the accident and facilitate rapid delivery of the patient to a hospital which can provide the needed care. Often referred to as the "golden hour," medical care provided to the patient during the sixty minutes following the accident is critical and often determines whether the patient survives the injuries. Designated trauma centers are vital to the system. Once a severely injured person arrives at a hospital, he will generally need the services of various specialists experienced in injury management.

Finally, Missouri has several laws designed to reduce fatalities and injuries. These laws include: Mandatory child restraints, mandatory seat belt, mandatory helmets for motorcycle riders and stiffer penalties for DWI (Driving While Intoxicated). However, during the 1987 legislative session, the speed limit was raised to 65 MPH on rural interstates.

ACCOMPLISHMENTS

The Missouri Head Injury Advisory Council co-sponsored with the University of Missouri a conference on prevention October 1985. The conference allowed for the discussion of Missouri's ability to gather data, its emergency medical services program, trauma center status and programs providing prevention activities.

During the 1986 legislative session, the council initiated legislation, which passed mandating hospitals to report head and spinal cord injuries. During FY'87, the council worked with the Department of Health and others to develop the reporting form. The registry is to be implemented July 1, 1987, and in accordance with law, is to issue at least annually a report to the council.

The council studied Missouri's voluntary trauma center system during FY'86. The council initiated legislation, which passed, during the 1987 legislative session which establishes and regulates trauma centers. It also instructs ambulances to bypass the nearest hospital in order to transport a severely injured patient to a trauma center, further defines what EMTs may do at the scene of an accident for a seriously injured victim and requires licensure for air ambulances. The bill was signed by the Governor August 7, 1987.

Since January 1986, the council has published a newsletter, *Quarterly*. Also, the council maintains resource files and distributes information on head injury upon requests. It has sponsored two other major conferences, "Head Injury: Meeting the Challenges" and "Head Injury: Focus on the Future."

The council has supported the Missouri Head and Spinal Cord Injury Prevention Program in its efforts to inform public school students as to the need for exercising caution and good judgment in order to prevent unnecessary injuries. For FY'88, the council supported state funding to expand the program statewide.

Also, the council networks with other safety groups including the Missouri Division of Highway Safety, Missouri Safety Council and the Seat Belt Coalition. In June 1986 the council director and two council members addressed the state and local safety councils as to how to use head injury data in their safety campaigns.

On behalf of the council, members opposed proposals to repeal the helmet law and to reduce seat belt fines. They also supported proposals to prohibit persons from riding in the back of pickup trucks without seat belts or other protective devices.

PLAN INITIATIVES

Public Safety Legislation

One–Year Goal: To support legislation which reduces fatalities and injuries.

First Year Objectives Fiscal Year 1988

1. To continue to oppose the helmet repeal.
2. To continue to oppose the seat belt repeal.
3. To continue to support legislation prohibiting children from riding in the back of pickup trucks.
4. To continue to study the issue of seat belts for school buses.

One–Year Goal: To promote ATV (all–terrain vehicle) safety.

First–Year Objectives Fiscal Year 1988

1. To gather information from the registry and other data sources to determine the number of children and adults seriously injured as the result of ATVs.
2. To study legislative options for promoting ATV safety (i.e. helmets, age requirements, licensing, banning from public roads and highways, etc.).
3. To draft legislation regarding ATV safety and/or support legislation drafted by others.

Public Information & Education

Two–Year Goal: To inform the public of the causes and treatment/rehabilitation of head injuries.

First–Year Objectives Fiscal Year 1988

1. To continue publishing the newsletter, press releases and other informational materials.

2. To maintain a resource file on current literature and audio–visual materials.

3. To continue to support funding to allow the Missouri Head and Spinal Cord Injury Prevention Program operated by the University of Missouri–Columbia to expand statewide.

Second–Year Objectives Fiscal Year 1989

1. To develop a speaker's bureau in coordination with the Missouri Association of the National Head Injury Foundation.

2. To develop brochures regarding incidence and causes of head injuries in Missouri.

3. Issue press releases and other materials reflecting the data from the registry.

4. To encourage other organizations promoting safety to incorporate facts on head injury along with fatalities in their educational efforts.

5. To encourage school districts to invite the Missouri Head and Spinal Cord Injury Prevention Program to conduct its program during school assemblies.

Two–Year Goal: To determine incidence of head injury.

Incidence of Head Injury

Second–Year Objectives Fiscal Year 1989

1. Using data from the trauma registry, determine the primary causes of injuries in Missouri, the number of injuries and the severity of injuries.

Three–Year Goal: To determine effectiveness of prevention programs.

Effectiveness of Prevention Programs

Third–Year Objectives Fiscal Year 1990

1. Using registry data and other informational systems, study the effectiveness of prevention programs and legislation designed to prevent injuries and fatalities.

2. Work with the University of Missouri–Columbia to study effectiveness of the Missouri Head and Spinal Cord Injury Prevention.

EMS & Trauma Centers

Three–Year Goal: To improve the effectiveness of the emergency medical services system and trauma centers system.

Third–Year Objectives Fiscal Year 1990

1. Using data from the registry, work with the Department of Health to study the effectiveness of Missouri's emergency medical system and the trauma center system.

Issue 2: Planning for a Statewide Service Delivery System

BACKGROUND

Programs for survivors of head injury are relatively new in that they have surfaced across the country the past ten years. No state has developed a statewide service delivery system. The state of Missouri began addressing the lack of services for survivors and their families just two years ago by establishing the Missouri Head Injury Advisory Council and by providing services. Since the state has become involved with the provision of services, both direct and through purchasing, there needs to be a way to determine service needs, prioritize services and to distribute them to ensure overall accessibility and availability.

There is no designated state agency to provide a full array of services. Some of the state agencies, however, have established or are in the process of establishing policies and guidelines for serving victims of head injury in their agencies. As the service delivery system is defined, the council will need to continue to work with the various agencies to clarify their roles as well as to promote coordination.

Many fields use a case management system to coordinate and monitor all services to meet the full range of needs of an individual client. Case management can include the following general functions: (1) outreach, (2) intake, (3) assessment, (4) service plan development, (5) service coordination, (6) advocacy, (7) crisis intervention and (8) monitoring. The purpose of case management is to ensure that clients receive appropriate services.

Although some head injury programs, medical programs, insurance, vocational rehabilitation programs and others use a case management service within their own programs, there is not a statewide case management system independent of providers for survivors of head injury. Such a system would allow for coordination of services which may be provided by different agencies.

ACCOMPLISHMENTS

For Fiscal Year 1986, general revenue (state) funds were appropriated to the Missouri Department of Health for purchasing through the state bid system services for survivors of head injury. (The contract money is to be transferred to the Missouri Office of Administration, the Division of General Services, Head Injury section, July 1, 1987.) The council provided assistance to the Department of Health and the Office of Administration, Division of Purchasing as requested with the development of Request for Proposals (RFPs). (It was noted then that there was a lack of common terminology for programs and services.)

Funds were also appropriated in FY'86 to the Missouri Rehabilitation Center, formerly Missouri Chest Hospital, for a head injury unit. This is the first state operated program established specifically for survivors of head injury.

The council supported funding for additional staff for FY'87 for a head injury unit at St. Louis State Hospital. The facility had previously identified patients believed to be head injured and who exhibited aggressive behavior in an attempt to provide more appropriate services. Two FTEs (Full Time Equivalents) were appropriated to that unit.

To assist with program planning and development the Missouri Head Injury Advisory Council during FY'86 identified and defined services and programs which may be needed starting with acute brain injury rehabilitation, functional living rehabilitation, transitional living and community support services including residential, case management, counseling, home health care, employment, recreational, transportation and day programs. The report, ***Proposed Service Delivery System for Rehabilitation of Missourians with Head Injury***, was distributed statewide for comment. The acute brain injury rehabilitation, functional living and transitional living programs were defined based on Commission Accreditation of Rehabilitation Facilities (CARF) standards.

PLAN INITIATIVES

Planning Service Catchment Areas

One–Year Goal: To define service catchment areas for geographic distribution of services.

First–Year Objectives — Fiscal Year 1988

1. To study service catchment areas used by other agencies for program delivery and planning purposes.
2. To define catchment areas taking in consideration population, accessibility by highway system, accessibility to medical trauma centers and rehabilitation programs.
3. To study integration of a case management system.

Contract Monies

One–Year Goal: To determine the most effective use of contract monies appropriated to the Office of Administration, Division of General Services.

First–Year Objectives — Fiscal Year 1988

1. To develop evaluation and monitoring tools for programs under contract with the Office of Administration, Division of General Services, Head Injury Section.
2. To monitor and evaluate programs under contract with the Missouri Office of Administration during FY'88.
3. To review FY'88 monitoring reports and the evaluations provided by the Department of Health for FY'86 and FY'87.
4. To review the RFP issued in FY'86 to solicit contracts to see if revisions need to be made.
5. To develop RFPs for FY'89 (starting July 1, 1988) based on council priorities and monitoring/evaluation reports of previous contracts.

Assess Service Needs

Three–Year Goal: To assess service needs.

First–Year Objectives Fiscal Year 1988

1. Rank service needs based on council knowledge and/or in consultation with other organizations.
2. To develop or to assist others to develop a tool or method to assess service needs comprehensively.
3. To develop an inventory of services currently provided.

Second–Year Objectives Fiscal Year 1989

1. To continue comprehensive assessment of needs.
2. Work with Department of Health to develop research projects for purposes of assessing needs utilizing registry data.

Third–Year Objective Fiscal Year 1990

1. To continue or to support research projects.
2. To rank service needs by service catchment area based on survey results, current services provided and data from head injury registry.

Three–Year Goal: To determine roles of existing state agencies in providing directly or indirectly services to survivors of head injury and their families.

Roles of State Agencies

First–Year Objectives Fiscal Year 1988

1. To review eligibility criteria for services from the Department of Mental Health, Department of Elementary and Secondary Education, Department of Health and Department of Social Services.
2. To discuss with each department or appropriate division director what services are to be provided and the eligibility criteria for those programs.

Second–Year Objectives Fiscal Year 1989

1. To develop agreements as to how services are to be provided and alternatives for departments when the department's services are not appropriate.

2. To develop a referral system for state agencies and non–state agencies.

Third–Year Objectives Fiscal Year 1990

1. To determine which, if just one, state agency should have primary program responsibility for survivors of head injury.

Case Management

Five–Year Goal: To develop a case management model system.

First– through Fifth–Year Objectives Fiscal Years 1988–1992

1. To study philosophy and cost benefit of a case management system independent of service providers.

2. To work with the University of Missouri–Columbia should the University receive funding for its grant application to develop a pilot project for case management.

3. To work with the Department of Mental Health to establish a pilot project under the Medicaid waiver.

4. To develop budget requests for case managers based on the council's study.

Issue 3: Rehabilitation Services

BACKGROUND

Part of the challenge of providing adequate care for persons who sustain traumatic head injury is the diversity of needs after injury. Post–injury can range from full time care to community re–integration. The order in which services are used can also vary; some people will move from acute medical care into community

integration while others may require extended periods of nursing care before they benefit from rehabilitation. Many persons require more than one type of treatment simultaneously. Thus, services must be flexible, but also allow for the most frequent progressions.

Most often, after traumatic brain injury, the victim goes from acute medical care to rehabilitation. This first rehabilitation, or Acute Brain Injury Rehabilitation, focuses on physical and gross cognitive deficits. This intensive rehabilitation program provides comprehensive goal directed rehabilitation services. The program is designed to prevent and/or minimize chronic disabilities while restoring the individual to the optimal level of physical, cognitive, and behavioral functioning. The rehabilitation program should be carefully coordinated and implemented as soon after onset of injury as is medically feasible.

Functional living rehabilitation provides intensive rehabilitation with goal directed services to persons who have either completed acute rehabilitation or who have no major acute rehabilitation needs. The population served includes persons who have sustained traumatically acquired non-degenerative head injury. Emphasis in this program is on functional cognitive, memory, or perceptual deficits, and appropriate interpersonal skills. Services may be delivered on an inpatient (residential) or outpatient (day program) basis.

Transitional living programs provide intensive rehabilitation with goal directed services to persons who have sustained traumatic head injury and who have completed acute and functional living rehabilitation programs or who have no significant need for such services. Emphasis in this program is on living in an independent situation. In this program, participants would typically move from close observation and supervision to independent living with minimal supervision. Transitional living programs may exist independently or may be part of a larger program. The program should provide safe, accessible housing which allows transition from group living situations to independent living. Housing facilities should include provision for 24 hour supervision.

Several hospitals provide acute rehabilitation and some provide functional living rehabilitation. There are also a few rehabilitation facilities providing services which could be defined as functional living rehabilitation.

ACCOMPLISHMENTS

During FY'87, the council defined rehabilitation programs in terms of program setting, staffing and treatment/rehabilitation considerations.

As the result of state appropriations, programs providing functional living rehabilitation were created at Rusk Rehabilitation Center, Columbia; Truman Medical Center–East, Kansas City; and Missouri Rehabilitation Center, Mt. Vernon. Irene Walter Johnson Institute of Rehabilitation, St. Louis, has also established a program without state funding. These programs now meet periodically to share ideas and information and are developing a database.

The Missouri Rehabilitation Center, Mt. Vernon, also provides Transitional Living Rehabilitation services. The Missouri Rehabilitation Center was created by the Missouri General Assembly in FY'86.

PLAN INITIATIVES

Rehabilitation Programs

Five–Year Goal: To develop an array of rehabilitation programs accessible statewide.

First–Year Objectives — Fiscal Year 1988

1. To include in the service inventory the number, location, eligibility requirements and type of rehabilitation programs currently available statewide.
2. To address rehabilitation programs in the needs assessment survey.
3. Determine the need for rehabilitation programs based on needs assessment survey, service inventory and trauma registry.

First– through Fifth–Year Objectives — Fiscal Years 1988–1992

1. Prepare and submit budget request to establish a transitional living (residential) program.
2. Support expansion of the head injury programs, including the transitional living programs, at the Missouri Rehabilitation Center, Mt. Vernon.
3. Prepare and submit budget requests for other rehabilitation programs based on needs assessment.

Three–Year Goal: To promote coordination between acute hospitals and acute brain injury rehabilitation programs and between acute brain injury rehabilitation programs, functional living, transitional living programs and community support programs.

First– through Third–Year Objectives **Fiscal Years 1988–1990**

1. Distribute information regarding availability of services compiled as the result of the service inventory to social services department of hospitals.
2. Require programs receiving state funding from the Missouri Office of Administration, Division of General Services to have written agreements and/or policy regarding the relationships between the facility and rehabilitation programs, community support programs, acute hospitals and/or educational programs. The programs should be able to document the results of the agreements.
3. Conduct workshops regarding availability of services.
4. Promote awareness of programs through newsletter.

ISSUE 4: Services for Children

BACKGROUND

Rehabilitation services for children are limited. Very few services are available to children with long term medical needs. There is only one children's nursing care facility in the state. The Medicaid program has strict financial guidelines which limits most families from being eligible for medical care. The Department of Social Services obtained a Medicaid waiver to provide in–home services to children with medical needs. However, the program has been partly unsuccessful due to the eligibility criteria.

The Division of Mental Retardation and Developmental Disabilities provides some services to children with head injuries and their families. The division considers a child to be developmentally disabled when the injury occurs prior to age 18 and the child functions similarly to those children with mental retardation or other developmental disabilities.

ACCOMPLISHMENTS

The Department of Elementary and Secondary Education, Division of Special Education, has assigned staff to assist school districts to provide educational services to children with head injuries. The division has prepared a manual, *Developing Individual Education Plans for Students Who Have Suffered Traumatic Head Injury*, outlining educational responsibilities.

The National Head Injury Foundation (NHIF) has prepared a manual for special educators. The Missouri Division of Special Education has made the manual available to teachers upon request and encourages special educators to use the division's manual as a supplement to the NHIF manual.

The Department of Mental Health is proposing a Medicaid waiver to provide more appropriate services to eligible clients or potential clients of the Division of Mental Retardation and Developmental Disabilities—including those who meet the division's eligibility requirements as the result of head injury. The waiver will include those under eighteen provided they can meet eligibility under the Medicaid program.

PLAN INITIATIVES

Children's Services

Five-Year Goal: To study and recommend appropriate rehabilitation, long term care, educational, respite and other support services for children with head injuries and their families.

First-Year Objectives — Fiscal Year 1988

1. Determine the service needs of children with head injury by a needs assessment survey.
2. Survey number of existing or planned programs for children to be included in the service inventory.

Second- through Fifth-Year Objectives — Fiscal Years 1989–1992

1. Study and recommend a model(s) for programs for children suffering from head injury.

2. Work with the Department of Mental Health to determine its role in providing services to children with head injuries.

Issue 5: Community Support Services

BACKGROUND

Community Support Services provide ongoing or intermittent support to traumatically head injured individuals and their families after rehabilitation. These services may exist independently or be part of a larger program. Such services provide ongoing or intermittent support in several areas including counseling, therapies, transportation, residential, employment, vocational, day program, case management and other support services.

Residential services include nursing facilities, supervised living arrangements, structured residential placement for those exhibiting severe behavior problems and coma management programs.

Many persons who suffer from a head injury may return to their employment. Others, with vocational rehabilitation, may return to their job or be employable in a different job setting. Still, others, will need either supported employment or sheltered employment after vocational training.

Day programs maintain the intellectual, emotional, social, vocational and physical capacity of persons with head injury who are not in a full time school or work program. The purpose is to provide survivors of head injury not only with a safe and supportive living environment, but also with daytime activities commensurate with that person's functioning level. The program has a different purpose than a day treatment (functional living rehabilitation or transitional living) program.

Family support services not only help survivors of head injury living at home reach their full potential, they can also save money by preventing inappropriate placement.

Respite care can meet various needs. It can prevent "burnout" by giving a family a day or weekend off from the care of the head injured person. Respite can also supply care in emergency situations.

Personal care assistance is available on a limited basis from the Division of Vocational Rehabilitation, Department of Elementary and Secondary Education. The program receives funding from General Revenue (state) and, therefore, services are limited to the amount appropriated.

Home health care agencies provide three type of services:

(1) In-home visits by nurses. Such services are generally covered by Medicaid or Medicare;

(2) Homemaker program which provides non-medical assistance, such as grocery shopping, to elderly or handicapped persons who would otherwise be in nursing homes. The program is eligible for Medicaid and tends to be oriented to the elderly; and

(3) Private duty (8 hours at a time) which is generally covered by private pay, insurance and sometimes Medicaid.

ACCOMPLISHMENTS

During FY'86, the Missouri Head Injury Advisory Council surveyed the number of survivors of head injury receiving services from the Department of Mental Health through its Divisions of Comprehensive Psychiatric Services and Mental Retardation and Developmental Disabilities, from nursing homes and from home health care agencies. The survey noted that a significant number were being served, although most were not receiving services specific to their injury related deficits. The Department of Mental Health is proposing to include eligible head injury clients receiving services from the Division of Mental Retardation and Developmental Disabilities under a Medicaid waiver in an attempt to provide services more appropriately and in a less restrictive environment. Services proposed under the waiver include residential, (re)habilitation, therapies, case management, transportation, respite, and home adaptation.

This waiver would allow Missouri to access additional federal funds under the Medicaid program to be used to fund services for eligible head injured clients of the division who would otherwise face institutionalization in nursing homes or habilitation centers (institutions). The Division of Mental Retardation and Developmental Disabilities has requested staff training in evaluation and in writing appropriate program plans for survivors of head injury.

Some nursing facilities have expressed interest in serving head injured persons who are comatose or semi-comatose and/or who need rehabilitation in a residential setting.

The Department of Elementary and Secondary Education, Division of Vocational Rehabilitation, has assigned a vocational rehabilitation counselor in each district office to work with clients with head injuries. The division provides ongoing in-service training regarding head injury to counselors.

The first vocational rehabilitation program to expand its services to head injured clients was Metropolitan Employment Rehabilitation Services, St. Louis, with the assistance of the Division of Vocational Rehabilitation. Funding from the Department of Health (to be transferred to the Office of Administration) was used to expand vocational training and on-job-training and supervision by Advent Enterprises, Columbia, for head injured persons. The program started in March 1986.

The Missouri Head Injury Advisory Council initiated legislation introduced during the 1987 legislative session to allow sheltered workshops to receive a portion of the state subsidy for those clients who work less than six hours a day. This would give the workshop staff flexibility to tailor the workshop program for those who may not be able to work a six hour day or who may require programming in conjunction with part time sheltered employment. Blue Valley Industries, Kansas City, is proposing a sheltered workshop for employees suffering from a head injury. (Many sheltered workshops have employees who suffered from a head injury integrated in their workshops.)

A day program was established in St. Louis by the Bi-State Chapter of the Missouri Association of the National Head Injury Foundation, with funding from the Department of Health (contractual services) in FY'86. Jacobs Center, Columbia, also provides day program services. The Center does not receive state funding for head injury services, but does receive state funding from the Department of Mental Health for department clients. Opportunities Unlimited, an independent living program in Columbia, also receives state funding to provide assistance to survivors of head injury including the arrangement of personal care attendant services, counseling and some supervision for those living independently.

Advent, Jacobs Center, Opportunities Unlimited and Rusk Rehabilitation Center have formed the Missouri Brain Injury Consortium. The participating agencies coordinate their services so as to provide a comprehensive plan of rehabilitation for persons with head injury residing in Mid-Missouri.

The Missouri Association of the National Head Injury Foundation sponsors Wilderness Retreat at the Lake of the Ozarks during the summer. The Retreat not only provides socialization/recreational opportunities for survivors of head injury, but also respite for their families. The camp receives some funding from the state.

PLAN INITIATIVES

DMH Medicaid Waiver

Two–Year Goal: Participate with the Department of Mental Health to obtain a Medicaid waiver and to implement the waiver, should it be approved.

First–Year Objectives Fiscal Year 1988

1. Assist the department in determining clients or potential clients with head injury who would be more appropriately served under the Medicaid waiver.
2. Assist the Department of Mental Health in identifying potential providers for services approved in the Medicaid waiver.
3. Assist the Division of Mental Retardation and Developmental Disabilities with the development of policy with regard to appropriate services for those clients who have suffered a head injury.

Second–Year Objectives Fiscal Year 1989

1. Assist the Division of Mental Retardation and Developmental Disabilities by providing/arranging training to case managers with regard to evaluation/assessment, interpretation, and writing appropriate rehabilitation/ treatment goals.

Coma & Semi–Coma Management Programs

Two Year Goal: To develop coma and semi–coma management programs.

First–Year Objectives Fiscal Year 1988

1. Survey and/or use registry data to determine the number of persons requiring coma/semi–coma care.
2. Support the Missouri Rehabilitation Center in developing either a coma or semi–coma management program.
3. Initiate a committee or task force to study the costs of coma management programs.
4. The committee once appointed, will study the necessary staffing and medical/equipment considerations for a coma management program.

5. The committee will look at existing rate structure under the Medicaid program, the Medicaid exception process, Medicaid waiver or other funding areas and make recommendations as to how coma management programs should be funded.

Second–Year Objectives Fiscal Year 1989

1. Introduce legislation, if needed, to implement coma management programs.
2. Develop standards, if needed, for coma management programs.
3. Working with nursing home organizations, assist with staff training, if desired.

Three–Year Goal: To develop behavior management programs.

Behavior Management Programs

First–Year Objectives Fiscal Year 1988

1. Determine the need for a structured residential placement to be developed specifically for those with severe behavior problems.
2. Identify program costs needed for a program for severe behavior disorders.

Second–Year Objectives Fiscal Year 1989

1. Identify eligibility criteria for those programs.
2. Identify potential providers for a behavior management program.
3. Work with the University of Missouri–Columbia to develop in–service staff training workshop(s) designed to assist program (state and non–state) staff in managing aggressive behavior exhibited by head injured clients.

Third–Year Objectives Fiscal Year 1990

1. Prepare and submit a budget request to increase state funding for a pilot behavior management program.

Supervised Living Programs

Five-Year Goal: To develop supervised living arrangements for those who will continue to need supervision following rehabilitation.

First- and Second-Year Objectives — Fiscal Years 1988-1989

1. To develop a model for supervised living arrangements addressing:
   (a) a definition/description of supervised living arrangements (apartment, group home, including staff requirements or other requirements).
   (b) an array of support services, including day programs or employment, needed in conjunction with supervised living arrangements.
   (c) standards, including physical plant facility, safety, drugs and medications, record keeping and client rights.
2. To study similar residential alternatives available to victims of head injury in other states and similar programs offered to other population groups in this state.
3. Determine the number of persons with head injury who are in need of supervised residential programs.

Third-Year Objectives — Fiscal Year 1990

1. Study and recommend how supervised living arrangements could be funded, both start up costs and operational costs.
2. Conduct a workshop on funding sources (HUD, Section 8, "S.B. 40," insurance and other sources) for supervised living arrangements.

Third- through Fifth-Year Objectives — Fiscal Years 1990-1992

1. Locate potential providers for developing supervised living arrangements.
2. Assist potential providers in accessing funds.

3. Prepare and submit budget request to assist with funding for supervised residential program.

Three–Year Goal: To develop programs which offer pre–vocational, vocational and /or vocational rehabilitation services.

Vocational Rehabilitation Programs

First–Year Objectives Fiscal Year 1988

1. Support the Division of Vocational Rehabilitation in its efforts to secure appropriate vocational rehabilitation services.

2. Participant on an advisory committee established by the Division of Special Education and others in studying the role and options for sheltered workshops, including the provision of pre–vocational and/or vocational training in addition to sheltered employment.

Second– and Third–Year Objectives Fiscal Years 1989–1990

1. To encourage private/public institutions to develop vocational training programs for survivors of head injury.

2. Draft legislation, if needed, to allow state subsidy for those sheltered workshops who opt to provide training in addition to sheltered employment.

3. To determine the role of vocational education schools in providing vocational training to students who have suffered from a head injury.

Two–Year Goal: To develop supported work programs.

Supported Work Programs

First–Year Objectives Fiscal Year 1988

1. Review the Division of Vocational Rehabilitation and other agencies plan for a supported employment initiative.

2. Survey the number of head injured who would benefit from supported work programs.

3. Participate with the Division of Special Education in determining the sheltered workshops' role, if any, in providing supported employment programs.

Second–Year Objectives Fiscal Year 1990

1. Draft legislation, if needed, to address supported employment.
2. Work with the Division of Vocational Rehabilitation in accessing VR funds for supported employment for head injured clients.
3. Encourage the development of supported work programs.

Sheltered Employment

Three–Year Goal: Develop sheltered employment for employees who are handicapped due to head injury.

First– through Third–Year Objectives Fiscal Years 1988–1990

1. Work with the Division of Special Education and the advisory committee to determine how sheltered employment should be made available to survivors of head injury.
2. Encourage the establishment of sheltered employment for persons with head injury.

Competitive Employment

Three–Year Goal: To develop employment opportunities.

First– through Third–Year Objectives Fiscal Years 1988–1990

1. To determine vocational training and skills needed in order for survivors of head injury to become employable.
2. To evaluate success of persons with head injury in returning to employment.
3. To recognize employers who have established exemplary programs for employing persons with head injury.
4. To develop informational brochures for employers regarding the benefits of hiring persons handicapped due to head injuries.

Home Health Care & Personal Attendant Care

Three-Year Goal: To expand usage of home health care and personal care attendant services.

First-Year Objectives Fiscal Year 1988

1. To work with the Department of Mental Health to identify vendors who could provide home health care under the Medicaid waiver to victims of head injury should waiver be approved.

Second-Year Objectives Fiscal Year 1989

1. To work with the Division of Vocational Rehabilitation to determine the number of persons with head injury who would be eligible for personal care assistance.
2. To work with the Division of Aging to determine how survivors of head injuries and their families could access home health care services through the division's programs.
3. Ask Missouri Association of Home Health Care Agencies and Hospital Home Health Council to include a session on the needs of persons with head injuries and their families at their annual conferences.

Third-Year Objectives Fiscal Year 1990

1. Based on needs of survivors of head injury for personal care assistance, work with the Division of Vocational Rehabilitation to obtain sufficient funding.
2. To develop a referral mechanism or resource document to include home health care agencies which could provide services to survivors of head injury and their families for hospitals, local health units, and physicians.

Respite Care

Three-Year Goal: To develop respite care.

First- through Third-Year Objectives Fiscal Years 1988-1990

1. To study various methods for providing respite care.
2. To study funding sources for respite care.
3. To develop a model for providing respite care.
4. To encourage providers to offer respite programs.

Day Activity Programs

Five-Year Goal: To establish day activity programs.

First- and Second-Year Objectives Fiscal Years 1988-1989

1. Survey number of existing day programs or planned programs to be included in the service inventory.
2. Determine need according to needs assessment.
3. Develop a model for day activity programs which addresses:
   (a) a definition/description of day activity programs including the qualifications of day program providers paid under state contract.
   (b) an array of day program services which should be available according to needs assessment and registry data.
4. Explore funding for adult day care.
5. Work with the Department of Mental Health to develop day care, personal care, respite and home/equipment modification under the Medicaid waiver.

Third- through Fifth-Year Objectives Fiscal Years1990-1992

1. Prepare and submit budget requests to expand day programs and other support services.

Family Support Services

Five Year Goal: To develop an array of family support services.

First- through Fifth-Year Objectives Fiscal Years 1988-1992

1. To design an array of family support services to include, but not limited to, information and referral, counseling, evaluation, crisis stabilization, in-home rehabilitation, recreation and transportation.

2. To identify potential providers for various family support services.

Issue 6: Professional Training/Staff Development

BACKGROUND

The demand for professionals experienced in working with survivors of head injury and their families will increase as programs and services are developed. Professionals will be needed in all areas including evaluation, case management, counseling, rehabilitation, community support programs and specialized programs such as behavior and coma management.

The Missouri Association of the National Head Injury Foundation, has the past five years sponsored statewide conferences for professionals and parents as has the Rehabilitation Institute, Kansas City, University of Missouri-Columbia and others.

ACCOMPLISHMENTS

The Missouri Head Injury Advisory Council has sponsored two conferences which included sessions designed for professionals. The Division of Vocational Rehabilitation counselors requested sessions on neuropsychological evaluation tools and how to interpret the data to formulate employment goals during the 1987 annual conference sponsored by the council. The division has conducted seminars on neuropsychological evaluation previously for its counselors.

The Division of Mental Retardation and Developmental Disabilities has also requested staff in-service.

The Division of Special Education has assigned staff to work with school districts and teachers who have students with head injury. The division provides assistance to help teachers to develop appropriate educational plans based on evaluations.

PLAN INITIATIVES

Professional Development

One–Year Goal: Provide opportunities for professionals to expand knowledge on head injury rehabilitation.

First–Year Objectives — Fiscal Year 1988

1. Conduct a spring conference to include topics such as research, medical, rehabilitation and community re–entry.
2. Work with the Department of Mental Health to assess in–service needs of mental health and mental retardation–developmental disabilities staff.

In–Service Training on Evaluation

Two–Year Goal: To encourage assessment teams to use functional evaluation tools with neuropsychological and medical assessment.

First– and Second–Year Objectives — Fiscal Years 1988–1989

1. To study and recommend the development of an evaluation tool to assess the functioning level of a person with a head injury.
2. Support inservice training/conference(s) to assist staff on how to assess functional level.

Behavior Management Staff Training

Three Year Goal: To train staff as to how to manage behavior problems.

First– through Third–Year Objectives — Fiscal Years 1989–1991

1. To work with the University of Missouri–Columbia and/or other institutions to develop training packages for staff.
2. To conduct in–service workshops on behavior management .

Issue 7: Legal Issues

BACKGROUND

As treatment, rehabilitation and other services for survivors of head injury are relatively new, many professionals, including the legal community, do not understand the deficits—such as cognitive, memory and judgment—that a victim of head injury may have. Such deficits may pose problems for head injured persons who are trying to meet the demands of daily living.

Sometimes the rehabilitation and care of a person with a head injury are often determined by the amount the person receives through a settlement related to the accident. It is important, therefore, for those representing the victim to understand the long term needs a person may have as the result of the injury.

Although certain types of disability or illness are addressed by law with regard to criminal actions, disabilities due to head injury are not. Persons considered dangerous to self and others may be involuntarily detained for psychiatric care if they are mentally disordered as defined by law or an alcohol or drug abuser as defined by law. A person suffering from a head injury who exhibits behavior which may be considered dangerous to self or others may be detained involuntarily under the provisions stated above for 96 hours. The mental health commitment law, however, does not pertain to persons who may be dangerous as the result of a brain injury. They cannot be detained beyond 96–hours unless they are determined to be mentally ill.

Another legal issue is the "right to die" issue. There are some instances where as the result of a severe head injury a person will remain in a vegetative state. Some parents or a spouse face a situation where the person will not regain consciousness and is dependent on mechanical devices to sustain life. Missouri does not have a "right to die" statute.

Finally, some victims of head injury may need protection or assistance in managing their fiscal affairs and/or personal affairs. It is important that the legal community understand how such protection could be provided under Missouri's Guardianship Code by a guardianship or limited guardianship and/or conservatorship or partial conservatorship.

ACCOMPLISHMENTS

During the 1987 conference, "Head Injury: Focus on the Future," workshops on legal issues were offered. Topics included Missouri's Guardianship Code, involuntary detention and criminal law, guilty by reason of insanity.

PLAN INITIATIVES

Programs for Persons Considered Dangerous to Self or Others

Three–Year Goal: To develop appropriate programs for those persons suffering from a head injury considered dangerous to self or others.

First– through Third–Year Objectives Fiscal Years 1988–1990

1. Work with the Division of Comprehensive Psychiatric Services, Department of Mental Health, to determine appropriateness of the commitment statutes and the Department of Mental Health programs to serve head injured persons considered dangerous to self or others.
2. Determine the number of persons who would require this type of care and protection.
3. Study and make recommendations, if appropriate, regarding involuntary outpatient treatment legislation introduced during the 1987 legislative session.

"Right to Die" Legislation

Five–Year Goal: To propose "right to die" legislation for introduction.

First– through Fifth–Year Objectives Fiscal Years 1988–1992

1. To study legislation from other states regarding the "right to die" issue.
2. To determine other organizations and professional groups which would also be interested in the "right to die" issue. Determine opposition to such legislation.
3. Draft legislation regarding the "right to die."

4. Obtain sponsor to introduce "right to die" legislation.

Three-Year Goal: To educate the legal system.

Educate Legal System

First- through Third-Year Objectives **Fiscal Years 1988-1990**

1. To ask the Missouri Association of Trial Attorneys to include a session(s) on head injury, at its annual conference.

2. To ask the Missouri Bar Association to include a seminar(s) on head injury through its continuing education program.

Issue 8: Quality Assurance

BACKGROUND

Since programs for survivors of head injury are relatively new, there are no state licensure or certification requirements for programs serving exclusively survivors of head injury. (There are licensure/certification requirements for nursing facilities and for residential and day programs serving persons with mental illness, alcohol and drug abuse problems and mental retardation or other developmental disabilities.) The Commission on Accreditation of Rehabilitation Facilities (CARF), which is a voluntary organization, has developed accreditation standards for acute rehabilitation programs. The National Head Injury Foundation is an associate member of CARF.

ACCOMPLISHMENTS

During FY'1986, the council defined acute, functional and transitional living programs based, in part, on CARF standards.

PLAN INITIATIVES

Five-Year Goal: To develop standards for head injury programs receiving state funds.

Program Standards

1. Study and make recommendations for program standards with regard to staffing, safety and treatment/ rehabilitation plans.

2. As standards are developed and are accepted, incorporate them into state program contracts (RFPs).

Issue 9: Financial Support

BACKGROUND

Head trauma usually results in large medical bills for the victim and/or family. Following acute care, many will still require rehabilitation and others will require life long rehabilitation and care. Private insurance pays for at least partial acute care medical expenses. Many policies, however, do not cover rehabilitation or long term care.

The state Medicaid program has strict financial guidelines which make it difficult for working families to be eligible. The program also is limited as to what services it will reimburse.

Some financial aid is available through Missouri Crippled Children's Services administered by the Missouri Department of Health. The program is to help financially eligible children under age 21 obtain medical, rehabilitation and other services. The guidelines are broad enough to accommodate head injured children, but program funding is limited.

There are three issues surrounding insurance. One issue is that many persons did not carry insurance prior to the injury. Therefore, many persons who are head injured do not have insurance to pay for medical care. Others may carry insurance, but find that their policies do not cover rehabilitation and/or long term care. A third issue is that some survivors of head injury find that following their accidents, they are unable to find affordable health insurance as they are considered "high risk."

The costs associated with medical and long term care will often place financial hardship on families who have a member with a brain injury. Should a person not have insurance or should the insurance not cover all expenses and the person or family does not qualify for Medicaid, there are not any state aid programs to assist with the medical expenses.

A Missouri House of Representatives committee studied health care issues during the interim in 1986. It recommended a "Med–Assist " program to help those who were unable to obtain insurance to have a health care plan. The past two years legislation was also introduced to create a "high risk" pool in order for those considered "high risk" to be able to obtain insurance. During the 1987 session, the "high risk pool" concept was incorporated in the Med–Assist bill. The legislation did not pass.

There are several programs (federal, state and local) which are targeted, in part, to programs for persons with handicaps or directly to handicapped persons. Such programs include HUD (Housing and Urban Development), Section 8 rental subsidy, SSI, Missouri Elderly and Handicapped Transportation Assistance Program, federal Developmental Disabilities program and county mill tax programs for persons who are or otherwise handicapped developmentally disabled. Most of these programs have yet to be tapped by persons who are disabled due to a head injury or by programs providing services.

ACCOMPLISHMENTS

Council members testified before the interim house committee on health care regarding the needs of survivors of head injury. The council also supported the legislation to create a high risk pool and initiated legislation to create a catastrophic fund. During the 1987 legislative session, legislation was introduced to allow voters to increase cigarette taxes to be used for a state catastrophic fund. The proposal failed to receive approval from the Senate Insurance Committee. A Senate Concurrent Resolution No. 6 passed during the 1987 session calling for a joint interim committee to study health care needs. The committee is to be comprised of five senators, five representatives, public members and state agencies including an Office of Administration representative.

Senator Ed Dirck, Chairman of the Missouri Head Injury Advisory Council, requested an attorney general's opinion as to whether programs providing services to persons with head injuries would be eligible to receive funding from county boards which administer revenue generated from a county tax for persons with handicaps and developmental disabilities. The opinion was that the programs would be eligible. The opinion was sent to all county boards and sheltered workshops.

PLAN INITIATIVES

Health Care Coverage

One–Year Goal: For survivors of head injury to be able to obtain health care coverage.

First–Year Objectives Fiscal Year 1988

1. To continue to support efforts to create a high risk pool or any other alternative to allow persons considered high risk due to a head injury to obtain health care insurance (i.e. Med–Assist).

Three–Year Goal: To extend health insurance coverage.

First–Year Objectives Fiscal Year 1988

1. To study present required coverage under Missouri law.
2. To study other states' requirements for health care coverage.

Second–Year Objectives Fiscal Year 1989

1. To study and to assess cost savings, if any, if coverage were extended to include rehabilitation.
2. To study costs of including long term care coverage in health policies.
3. To study benefits of including catastrophic coverage in health policies.

Third–Year Objectives Fiscal Year 1990

1. To meet with the insurance industry to discuss rehabilitation coverage.
2. To meet with business associations and organizations to discuss cost and cost benefits, if any, for including rehabilitation coverage in group policies.

Study the Medicaid Program

Three–Year Goal: To expand Medicaid coverage.

First– through Third–Year Objectives — Fiscal Years 1988–1990

1. Participate in public hearings to be conducted by Joint Interim Committee on Missouri Health Care Systems and other deliberations which may be considered by the Missouri General Assembly.
2. To study state and federal options under the Medicaid program.
3. To make the legislators aware of the needs of survivors of head injury which could be addressed under the Medicaid program.
4. To recommend changes in the Medicaid program in order to meet the medical needs of survivors of head injury.
5. To study the feasibility of obtaining a Medicaid waiver to cover persons who are disabled due to head injuries.

One–Year Goal: To create program(s) to reimburse costs for catastrophic medical and rehabilitation care.

Catastrophic Care

First–Year Objective — Fiscal Year 1988

1. To participate and support the Joint Interim Committee on Missouri Health Care Systems in its efforts to study means of financing state programs to reimburse catastrophic medical and/or rehabilitation care.

Three–Year Goal: To access local, state and federal programs for persons with handicaps.

Local, State & Federal Programs

First– and Second–Year Objectives — Fiscal Year 1988–1989

1. To make available to organizations, agencies and persons information regarding various programs through the newsletter, presentations, etc.

Second– and Third Year Objectives — Fiscal Years 1989–1990

1. To sponsor workshop on funding resources.

About the Council Members

The Missouri Head Injury Advisory Council is comprised of twenty–five members. Two members are state representatives and are appointed by the Speaker of the House of Representatives for the remainder of their terms and two members are state senators appointed by the Senate President Pro Tempore for the remainder of their terms. The remaining twenty–one members are appointed by the Governor with advice and consent of the Missouri Senate.

The members elect a chairman and vice chairman in accordance with the bylaws.

Senator Edwin L. Dirck, St. Ann, is chairman of the Missouri Head Injury Advisory Council. Senator Dirck has served as chairman of the Senate Appropriations Committee for seven consecutive years. During the summer of 1984, he chaired a Joint Interim Committee on Head Injury which held a series of statewide public hearings. Following the hearings, Senator Dirck introduced and passed the mandatory seat belt law. He is presently chairman of the Legislative Research Committee, a member of the Senate Insurance Committee, chairman of State Budget Control, and vice chairman of the Aging and Mental Health Committee. He sponsored and passed the trauma center legislation.

David B. Collins, Springfield, serves as vice chairman of the Missouri Head Injury Advisory Council. He is employed as a Independent Living Specialist at Southwest Center for Independent Living. From December 1975 to December 1976 he was hospitalized as the result of an automobile accident. He is president of the Southwest Missouri Chapter of the Missouri Association of the National Head Injury Foundation and chairman of the Springfield Chapter of the Missouri Governor's Committee on Employment of the Handicapped. He is a member of the National Head Injury Foundation Board of Directors and co–chairman of the Foundation's Survivors' Task Force.

John F. Allan, Ed.D., Jefferson City, is the Assistant Commissioner (head) of the Division of Special Education, Department of Elementary and Secondary Education. He is a member of the American Educational Research Association and has served as a consultant for the National Center for Educational Statistics.

Michael H. Brooke, M.D., St. Louis, is Medical Director of Irene Walter Johnson Institute of Rehabilitation, Washington University School of Medicine, and Professor of Neurology and Professor of Preventive Medicine, Washington University. He belongs to the American Neurological Association and American Academy of Neurology (Fellow). Dr. Brooke serves as the director of the Jerry Lewis Neuromuscular Research Center, Washington University School of Medicine and member of the Editorial Board for "Muscle & Nerve."

Caroline A. Castillo, Kansas City, is employed as a Psychiatric Technician at Independence Regional Health Center in Independence. She received a Bachelor of Arts in Education in 1985 and is pursuing a Master of Arts in counseling psychology. She received a closed head injury in 1980.

Donald M. Claycomb, Ph.D., Jefferson City, is the Executive Director of the State Council on Vocational Education. He is a member of the Committee on Liaison to National Councils on Vocational Education, National Association of State Councils on Vocational Education.

Ben H. Ernst, St. Louis, is Director, Rankin Technical Institute. He is past president of the Missouri Association of Private Career Schools and past president of the American Technical Educational Association. He presently serves as Regional Representative of the American Technical Association; member of American Vocational Association and is Financial Secretary to the Board of Trustees of Rankin Technical Institute.

Judith A. Ferguson, Richmond, is the founder of the Missouri Association of the National Head Injury Foundation and has served on the Missouri State Board of Directors from its inception in 1981 until fall of 1985. She has served as vice president of State Association Affairs of the National Head Injury Foundation. Her son suffered a head injury in 1978.

R. Dale Findlay, Jefferson City, is the director of the Missouri Safety Council. He is past vice president of the Association of Safety Council Executives and is presently serving on the Governor's DWI Advisory Council.

Robert G. Frank, Ph.D., Columbia, is Associate Professor and Vice Chairman, Department of Physical Medicine and Rehabilitation, School of Medicine, University Hospital and Clinics, University of Missouri. Dr. Frank is a member of the Mid–Missouri Psychology Consortium Coordinating Committee.

Donald L. Gann, Ed.D., Assistant Commissioner (head) of the Division of Vocational Rehabilitation, Department of Elementary and Secondary Education. He is a member of the National Rehabilitation Association and the Council of State Administrators of Vocational Rehabilitation.

Charles H. Goforth, Springfield, is President and Administrator of UpJohn Health Care Services serving sixteen counties in Southwest Missouri. He is a member of the Missouri Advisory Council for Home Health Care.

L. Dennis Humphrey, Ed.D., Springfield, is a professor in the Department of Biomedical Sciences, Southwest Missouri State University. He is secretary of the Board of Directors, Springfield Coalition for Disability Rights. He is also a member of the Handicapped Advisory Committee, Mayor's Commission on Human Rights; Advisory Committee of the Section 504, Rehabilitation Act of 1973, Plan for the Public Transportation of the Handicapped; the Springfield Chapter of the Missouri Governor's Committee on Employment of the Handicapped; and past member of the Missouri Governor's Committee on Employment of the Handicapped.

Gerald J. Kampeter, Jefferson City, is the parent of a daughter with a head injury. He has worked for the Missouri Highway and Transportation Commission for 35 years. He is active in Boy Scouts of America, Highway and Transportation Employees Association and Travelers Protective Association of America.

Nancy Koenig, Florissant, is the parent of a son who suffered a head injury. She has served as president of the St. Louis Bi-State Chapter of the National Head Injury Foundation and as vice president of Operations of the Missouri Association of the National Head Injury Foundation. She is a retired elementary school music teacher.

Jane Y. Kruse, Jefferson City, is the director of the Division of Medical Services, Department of Social Services. The division has responsibility for administration of the state Title XIX (Medicaid) program. She is an attorney and a member of the Missouri Bar, Missouri Health Coordinating Council and the Alzheimer's Disease Task Force.

Representative Sheila Lumpe, University City, served as a member of the Joint Interim Committee on Head Injury during the summer of 1984. During the 1986 legislative session, she sponsored legislation which created the head and spinal cord injury registry and established the Missouri Head Injury Advisory Council. She is vice chairman of the House Committee on Critical Decisions and of the House Elementary and Secondary Education Committee and serves on the House Budget Committee and House Ways and Means Committee.

Donald E. McGowan, Wentzville, is safety director , BOC Group-General Motors Corporation, Wentzville Assembly Center. He is chairman of the Board of Directors of the Safety Council of Greater St. Louis and is past president of the board. He also served as a member of the Board of Directors of the Missouri Safety Council from 1980 to 1984.

Representative Marvin E. Proffer, Jackson, co-chaired the Joint Interim Committee on Head Injury. He is chairman of the House Budget Committee and a member of the House Agriculture, Legislative Research, Miscellaneous Resolutions, Ways and Means Committees. A member of the Missouri General Assembly for twenty-five years he has received numerous awards from organizations such as the Missouri Hospital Association, Missouri Health Care Association and Missouri Mental Health Commission. He co-sponsored the legislation establishing the head and spinal cord injury registry and the Missouri Head Injury Advisory Council.

Thomas M. Sullivan, Jefferson City, is deputy director of the Department of Economic Development. He previously served as the director of Missouri Senate Research and as the director of the Missouri Senate Appropriations Staff.

Nathan B. Walker, Jefferson City, is the director of the Division of Highway Safety, Department of Public Safety. He serves as Missouri's Governor's Representative to Highway Safety and is a member of the Governor's Council on DWI. He served two terms as state representative from 1980 to 1984. In 1982 he was elected as the Minority Whip of the House of Representatives.

Senator Harry Wiggins, Kansas City, served as a member of the Joint Interim Committee on Head Injury. He is chairman of the Senate Ways and Means Committee and is vice chairman of the Senate Judiciary and Public Health and Welfare Committees. He is also a member of the Senate Appropriations Committee, Interstate Cooperation and Rules, Joint Rules & Resolutions Committees. He handled the House Bill in the Senate which created the head and spinal cord injury registry. (He was the sponsor of the Senate version.)

Lorna M. Wilson, R.N., C., MSPH, Jefferson City, is the director of the Division of Local Health and Institutional Services, Department of Health. She is a member of the Missouri Nurses Association, American Nurses Association, Missouri Public Health Association and the Task Force for Local Health for State Board of Health.

About the Staff

Susan L. Vaughn, Jefferson City, is the director of the Missouri Head Injury Advisory Council. She has over ten years of experience in state government and in the field of developmental disabilities. She has previously been employed as a speech therapist at B. W. Sheperd State School for Severely Handicapped, which is operated by the Department of Elementary and Secondary Education, and employed by the Department of Mental Health. She represented the Department of Mental Health on the Joint Interim Committee on Head Injury. She holds a Master of Arts in Education with a specialty in Special Education.

Lois M. Lorenz, Jefferson City, is secretary for the head injury program. She has worked in state government for over six years having worked for the Department of Mental Health both in the Division of Alcohol and Drug Abuse and for the department director's office. Prior to the department, she worked for the Office of Administration, Division of Personnel.